CLINICAL NOTES, CASE REPORTS AND NEW INSTRUMENTS

TISSUE DIAGNOSIS IN THE OPERATING ROOM

AND IMMEDIATE COVER-SLIP EXAMINATIONS OF ALL FLUIDS AND PUS

By JOSEPH COLT BLOODGOOD, M. D.
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I will consider it a courtesy, writes Doctor Bloodgood, if you will publish this letter in your journal, as I am anxious to come in correspondence with pathologists and surgeons interested in the immediate examination, by frozen section, of tissue in the operating room and the immediate cover-slip studies of smears from all fluids and pus.

Microscopic examination of stained frozen sections has been possible for more than a quarter of a century. The staining of unfixed frozen sections with polychrome methylene blue and other stains is a well-established procedure. In many operating rooms in university and other large and small surgical clinics, provisions for these immediate diagnostic studies have not only been available, but have been in practical use for years. While, unfortunately, on the other side, this diagnostic part of the operating room is conspicuous by its absence in many clinics.

Before 1915 it was rarely necessary for a surgeon well trained in gross pathology to need a frozen section to help him in diagnosis at the operating table. Since 1915, and especially since 1922, the public has become so enlightened that malignant disease formally easily recognized either clinically or in the gross, now appears in our operating rooms devoid of its easily recognized clinical and gross appearance and can only be properly discovered by an immediate frozen section. The majority of operating rooms are not equipped or prepared for this new diagnostic test.

The first essential part for this diagnosis is the technician—one to cut and stain the frozen section, or to make and stain the smear. The second is a pathologist trained to interpret it. It is possible for the surgeon to be all three in himself, and some young surgeons are so equipped. In others it is a dual combination—surgeon and pathologist in one, and the technician. More frequently it is three—operator, technician, and pathologist. It makes little difference whether it is one, two or three individuals, providing each has the equipment and training for this most difficult diagnostic test.

In the address as chairman of the surgical section of the Southern Medical Association I discussed biopsy, and this paper has been published in the Southern Medical Journal for January, 1927 (Vol. XX, page 18). A reprint of this paper will be sent to anyone on request. The chief object of this letter is to come in contact with surgeons and pathologists who are sufficiently interested in this problem to discuss it either by correspondence, or by attending a meeting in the surgical pathological laboratory of the Johns Hopkins Hospital, either the Monday before, or the Friday after the meeting of the American Medical Association in Washington.

Schools for technicians may have to be established in different sections of the country, and the surgical pathological laboratories of the medical schools and the larger surgical clinics should offer courses in this tissue diagnosis so that surgeons may learn to become their own pathologists, or pathologists learn the particular needs of the surgeon in tissue diagnosis in the operating room.

It is quite true that when the majority of the public are fully enlightened the surgeon will see lesions of the skin and oral cavity and the majority of subcutaneous tumors when they are so small that their complete excision is not only indicated, but possible without any mutilation. The chief danger here will be a surgical mistake—the incomplete removal of an apparently innocent tumor. There is no necessity here for biopsy. If a proper local excision is done, no matter what the microscope reveals, that local operation should be sufficient. But when lesions of the skin, oral cavity and soft parts are extensive and their complete radical removal mutilating, then there must be biopsy to establish the exact pathology.

In tumors of the breast and disease of bone, for years, the diagnosis could be made clinically, or from the gross appearances at exploration. But now, an increasing number of cases, the breast tumor must be explored, and the gross pathology of this earlier stage is not sufficiently differentiated to allow a positive diagnosis. Immediate frozen sections are essential to indicate when the complete operation should be done. The same is true of the earlier stages of lesions of bone. The x-rays no longer make a positive differentiation between many of the benign and malignant diseases, for example, sclerosing osteomyelitis and sclerosing osteosarcoma.

We must not only specialize in tissue diagnosis, but we must organize this department so it will function properly in as many operating rooms as possible in this country.

Then there is a final and most difficult question to consider. I doubt if it can be settled. What shall be done in those operating rooms in which there is no technician to make the sections and no one trained to interpret the microscopic picture? How can a piece be excised or a tumor removed, for example, from the breast, and this tissue sent to some laboratory for diagnosis without incurring the risk of the delay to the patient. I have discussed this point in my paper on biopsy.

DON'TS IN DERMATOLOGIC DIAGNOSIS

By MOSES SCHOLTZ *

1. Do not try to make a dermatologic diagnosis from a picture in the atlas of skin diseases. In nine out of ten cases you will fail. Correct diagnosis can be made only from a study of the individual skin lesions and by analysis of differential morphologic features.

2. Do not make definite statement as to diagnosis under artificial or deficient light. A correct perception of color shadings is one of the most important factors in dermatologic diagnosis, and the daylight may completely reverse your opinion.

3. Do not base your diagnosis on history as it is given by the patient. In a majority of cases the history is unreliable and misleading. You are much safer to base your diagnostic conclusions on the present skin lesions, which supply all or most of the evidence you need. In this respect the technique of dermatologic diagnosis sharply differs from that of the internist.

4. Do not be satisfied with the examination of the part of the body that the patient chooses to show you, but inspect the whole of the body, particularly in all doubtful cases. If you do not inspect the body you may miss the most characteristic patch, and your clue to diagnosis.

5. Do not exaggerate the importance of the presence or absence of itching in dermatologic diagnosis. Itching is a subjective symptom and varies greatly with the personality of a patient.

6. Do not forget that the original clinical picture is often disguised and concealed by secondary acute derma-

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titis from irritating local medication. In these cases give a soothing ointment and defer the final diagnosis until this secondary inflammation subsides and reveals the original condition in its primary state.

7. Do not call an eruption "eczema" in the absence of the following features: Irregular round or square-shaped lesions, ill-defined diffuse borders, marked tendency of individual lesions to coalesce into patches, equal involvement of the central and peripheral parts, spreading by continuity, itching, absence of ulceration and scarring.

8. Do not try to force under one diagnosis all the patient's skin lesions. Remember that quite often the patient shows two or three different types of skin lesions, merely coexistent but entirely independent from each other.

9. Do not venture a diagnosis of a scabby or crusted lesion until you clean it up and see its base; a dirty, harmless-looking crust may conceal a number of very serious conditions.

10. Do not expect every "ringworm" to look like a ring. In fact, only a small minority of them look so. Diagnosis of ringworm is made on sharply defined borders, circinate shape and scaly marginated borders showing an "epidermal collarette." Incidentally, itchy, eczematoid, scaly patches between the toes, in the groins and axillae are in the majority of cases caused by ringworm.

11. Do not waste energy on trying to differentiate between eczema and dermatitis. It is the consensus of opinion of dermatologists that eczema and dermatitis are perfectly identical conceptions and may be used as interchangeable terms.

12. Do not forget that syphilis may simulate any dermatosis. However, the following "specific" features, if present, single or combined, suggest and often clinch diagnosis: raw ham, dusky red color, serpiginous or kidney shape, deep induration or infiltration, absence of itching, comparatively rapid involution, tendency toward ulceration and formation of thin, soft, atrophic "wrinkled cigarette paper" scars.

13. Do not overlook scabies in your well to do patients.

14. Do not mistake, as is often done, harmless pityriasis rosea for a secondary syphilide. Bathing trunk distribution, complete freedom of face, palms and soles from buff pinkish color, superficial scaling and activity at the lesion's edges, and the presence of "mother" patch will readily differentiate it from syphilis.

15. Do not ask the patient superfluous questions such as, "does it itch?" If it does you will see excoriations and scratch-marks.

16. Do not expect bulky "stuck on" crusts in every case of impetigo, i. e., streptoderma. It can be readily recognized by sharply defined borders, circinate shape, extremely superficial character of the lesions and, particularly, by a tendency to produce rapidly bursting bullae and serous exudate, leaving a moist, dark red velvety surface.

17. Do not fail to notice and examine insignificant-looking, brownish scabby or crusty patches on the face and hands of middle-aged people. Some of them may be potential or active incipient epitheliomata.

18. Do not mistake "insect bites" (so often observed in young children) appearing as large inflammatory papules, and do not call them hives or food rash. The presence of "stiletto," a small central opening, localization on the exposed surfaces and a peculiar triangular grouping readily identifies the nature of the condition.

19. Do not be influenced too much by Wassermann test in dermatologic diagnosis. Negative Wassermann occurs not uncommonly in the presence of active typical syphilides. Positive Wassermann means only that the patient had or has syphilis, but it does not necessarily mean that the present skin lesion is specific. A syphilitic may and does often contract other skin diseases.

20. Do not encourage the mistaken notion of laymen that most of the skin diseases are due to "blood poisons" and various systemic factors. You will be surprised to find what a large percentage (at least 30 per cent) of skin disorders in California are caused by local bacterial or mycotic infections.

ACUTE INTESTINAL OBSTRUCTION

REPORTING A CASE WITH RARE PATHOLOGICAL FINDINGS

By SAMUEL FLOERSHEIM

A widow, 62 years of age, very thin, always in good health, was suddenly attacked with symptoms of acute intestinal obstruction. Although the abdomen was quite thin and flaccid no definite tumor mass was outlined. Efforts to relieve the obstruction only served to increase the vomiting and abdominal distress. She refused to go to a hospital, to leave her home, or to have x-rays or other laboratory diagnostic aids employed. A surgeon was induced to attempt relief of the obstruction if possible or, failing in that, to do a colostomy under local anesthesia in the patient's home.

The scene was on the third floor of a tenement house and in the rear room. The kitchen was cleared, a large round table, with one center board removed, was used. With one nurse assistant, the patient was prepared as well as possible under the conditions and a local anesthetic was given, the surgeon and I proceeded to do an exploratory abdominal operation.

The descending colon was found moderately distended, while the sigmoid was collapsed but without signs of congestion, strangulation or gangrene. The upper pole of the sigmoid was encircled by two wide bands of fibrous tissue, each nearly two inches wide. From this point there was a sheet of tissue running across the abdomen to the right side, being attached to the cecum, then along the inner side of the ascending colon to the hepatic area, then across the abdomen following the transverse colon to the splenic region and downward following the descending colon to the points of constriction. This large area was a mass of countless cysts, which we interpreted as an extensive form of cystic degeneration of the greater omentum. There was some vomiting and nausea, which we attributed to the unrelieved obstruction and not to manipulation.

The two bands of constricting tissue were divided, the outer edges turned in and stitched for obvious reasons and the inner strips dissected from the sigmoid to the cystic mass. With traction on these bands we felt something within the abdomen give way. The surgeon apprehensive as to the damage done, fearing a tear into the intestine, began a careful search for damage, but found none; simply a mass of cysts were dislodged from the main mass. More traction brought through the abdominal opening a mass of golden cystic tissue the size of a cantaloup. Delving again into the abdomen, more cystic tissue were extracted, and finally blunt finger dissection exercised along the tract of the colon, when a large mass of cystic tissue was delivered. The cystic tissue while fresh and warm was of a golden yellow color. No fluids were used in the open abdomen. The parts were carefully mopped dry and the abdomen closed without provision for drainage. Primary union was obtained without the slightest evidences of inflammation, irritation or infection. The sizes of the cysts ranged from about a split pea to nearly twice the size of a baseball. No doubt there were very many minute and small cysts left in the abdomen. We worked one and one-half hours and were hampered by the family and relatives. The patient made an uninterrupted recovery, sat up in bed on the third day, was out about the room on the sixth, and three days thereafter did her daily labor as if nothing had happened. Three years later the patient was well. Inquiry made since my removal from New York to Los Angeles brought out the fact that the patient had died four years after the operation, and the cause of her death was given as heart disease.

A goodly portion of the mass of the cysts removed at the operation was sent to Dr. Emil Schwartz, pathologist, Woman's Hospital, New York City, who reported it to be an extremely rare form of pseudomucinous (golden yellow) cystic degeneration, of which, up to that time, November, 1918, there were but three cases on record. These were found discussed only in Von Bergman's system of surgery.